

ABSTRACT OF THE DISCLOSURE

Disclosed is a novel positive-working chemical-amplification photoresist composition capable of giving an extremely finely patterned resist layer in the manufacturing process of semiconductor devices. The photoresist composition comprises: (A) 100 parts by weight of a copolymeric resin consisting of from 50 to 85% by moles of (a) hydroxyl group-containing styrene units, from 15 to 35% by moles of (b) styrene units and from 2 to 20% by moles of (c) acrylate or methacrylate ester units each having a solubility-reducing group capable of being eliminated in the presence of an acid; and (B) from 1 to 20 parts by weight of a radiation-sensitive acid-generating agent which is an onium salt containing a fluoroalkyl sulfonate ion having 3 to 10 carbon atoms as the anion such as bis(4-tert-butylphenyl) iodonium nonafluorobutane sulfonate.